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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/799,827	03/12/2004	Alfred S. Gates JR.	K-1977	8510

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KENNAMETAL INC.

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EXAMINER

TURNER, ARCHENE A

ART UNIT

PAPER NUMBER

1775

DATE MAILED: 06/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/799,827

Applicant(s)

GATES ET AL.

Examiner

Archene Turner

Art Unit

1775

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) 26-28 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25, 29 and 30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>6/04&8/05</u> | 6) <input type="checkbox"/> Other: _____ |

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1. Applicant's election of Group I in the reply filed on 3/31/06 is acknowledged.

Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

2. Claims 26-28 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 3/31/06.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 7,14,21,30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is unclear where this claimed alumina layer is positioned with respect to the coating and the substrate in the independent claim, rendering these claims indefinite.

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-2,4-6,22, 23,29-30 are rejected under 35 U.S.C. 102(b) as being anticipated by Ljungberg (5,980,988).

Ljungberg discloses the claimed alpha alumina layer on the claimed substrate that can be used as a tool (abstract). The alumina layer may have a layer thereon (column 3, line 65-66). The morphology of the alumina layer is considered inherent to the way the layer is made.

7. Claims 8-9,11,13,14,22,24,29-30 are rejected under 35 U.S.C. 102(b) as being anticipated by Ruppi ("Chemical vapour deposition of $k - \text{Al}_2\text{O}_3$ ").

Ruppi discloses the claimed kappa alumina layer on the claimed substrate. The alumina layer may have a layer thereon. The morphology of the alumina layer is considered inherent to the way the layer is made.

8. Claims 15,16, 22,25 are rejected under 35 U.S.C. 102(b) as being anticipated by Yi-Feng et al ("Effects of an Electroplated....Nickel Based Superalloy").

Yi-Feng et al discloses the claimed alumina layer on a substrate. The morphology of the alumina layer is considered inherent to the way the layer is made.

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9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ljungberg (5,980,988) .

Ljungberg discloses the invention substantially as claimed except for the additional alumina layer.

It would have been obvious to one of ordinary skill in the art to provide an additional alumina layer, as this addition is known in the coating art to provide additional performance of the coated substrate.

11. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ljungberg (5,980,988) in view of Colmbier et al ("Formation of Mixed...by Chemical Vapour Deposition") or Ruppi et al (5,700,569).

Ljungberg discloses the invention substantially as claimed except for the specifics of the claimed under layers.

Colmbier et al or Ruppi et al disclose the claimed layers below the alumina layer.

Thus it would have been obvious to one of ordinary skill in the art to provide Ljungberg with these claimed under layers as Colmbier et al or Ruppi et al disclose these layers improve the performance of alumina on tools.

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12. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ruppi ("Chemical vapour deposition of $k - \text{Al}_2\text{O}_3$ ").

Ruppi discloses the invention substantially as claimed except for the coated substrate being used as the claimed insert.

It would have been obvious to one of ordinary skill in the art to use the coating of Ruppi for an insert as these coatings are known in the tool art to provide improved performance of tools.

13. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ruppi ("Chemical vapour deposition of $k - \text{Al}_2\text{O}_3$ ") in view of Colmbier et al ("Formation of Mixed...by Chemical Vapour Deposition") or Ruppi et al (5,700,569).

Ruppi discloses the invention substantially as claimed except for the specifics of the claimed under layers.

Colmbier et al or Ruppi et al disclose the claimed layers below the alumina layer. Thus it would have been obvious to one of ordinary skill in the art to provide Ruppi with these claimed under layers as Colmbier et al or Ruppi et al disclose these layers improve the performance of alumina on tools.

14. Claim 18-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yi-Feng et al ("Effects of an Electroplated...nickel Based Superalloy").

Yi-Feng et al discloses the claimed coating but not specifically used for an insert with the claimed components.

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It would have been obvious to one of ordinary skill in the art to use the coating of Yi-Feng et al as a coating for a tool with the claimed components, as alumina coatings are known in the tool art to provide for improved coatings.

15. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yi-Feng et al ("Effects of an Electroplated....nickel Based Superalloy") in view of Colmbier et al ("Formation of Mixed....by Chemical Vapour Deposition") or Ruppi et al (5,700,569).

Yi-Feng et al discloses the claimed alumina layer.

Colmbier et al or Ruppi et al disclose the claimed layers below an alumina layer.

Thus it would have been obvious to one of ordinary skill in the art to provide the tools of Colmbier et al or Ruppi et al with the alumina layer of Yi-Feng et al as this alumina layer has been shown to have improved performance.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Archene Turner whose new telephone number is (571) 272-1545. The examiner can normally be reached on Monday, Wednesday through Friday from 10:30 am. to 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jennifer McNeil can be reached on (571) 272-1540. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. Please remember to include on the fax, the art unit 1775, serial number and Examiner's name.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'A. A. Turner', with a long horizontal flourish extending to the right.

A. A. Turner
Primary Examiner
Group 1700

aat